



## NASA Glenn Research Center 2011 – 2012 High School Shadowing Project

### Program Description

The High School Shadowing Project provides high school students with a career exploration experience for 1 day or up to 10 days (i.e., junior/senior projects) at the NASA John H. Glenn Research Center (GRC). Opportunities are available during the school year for students interested in science, technology, engineering, mathematics, and professional administration. This project is sponsored by the Educational Programs Office.

### Program Goal

Shadowing provides high school students with an opportunity to explore career possibilities in a research and development environment while under the guidance of a GRC scientist, engineer, technician, or administrative professional that serves as the student's mentor. Students are provided with information about various careers, career paths, and GRC educational resources and programs.

Students will depart from GRC with knowledge that will be of value to them in career decision making and an awareness of additional educational opportunities and resources at GRC.

### Glenn Research Center

The NASA Vision—To improve life here, to extend life to there, to find life beyond. The NASA Mission—To pioneer the future in space exploration, scientific discovery, and aeronautics research. As one of NASA's 10 field centers, the John H. Glenn Research Center at Lewis Field supports all NASA missions and the major programs of our Agency.

GRC works as a diverse team in partnership with government, industry, and academia to increase national wealth, safety, security, protect the environment, and explore the universe. GRC is distinguished by its unique blend of aeronautics and spaceflight experience. As we move toward a greater focus on spaceflight hardware development, we are benefiting from our various accomplishments and expertise in aeronautics. Our work is focused on technological advancements in spaceflight systems development, aeropropulsion, space propulsion, power systems, nuclear systems, communication, and human research.

GRC is located in the Great Lakes region of Ohio and occupies a 350-acre site adjacent to Cleveland Hopkins International Airport. The Center comprises over 150 buildings that contain a unique collection of world-class facilities. NASA GRC also includes the 6400-acre Plum Brook Station near Sandusky, Ohio.

You are encouraged to visit the GRC home page to learn more about our research activities and programs at <http://www.nasa.gov/centers/glenn/home/index.html>.

### Eligibility Requirements

Applicants must be **U.S. citizens**, a high school student, and at least 16 years of age. Students who are interested in science, technology, engineering, and mathematics and professional administration fields are eligible. Students must be recommended for a shadowing experience by a science, technology, or mathematics teacher to participate.

### Program Requirements

Students typically shadow for 1 day. Junior or senior project shadowing opportunities (up to 10 days) are very **limited** as the mentor pool has been impacted by budget constraints and organizational changes (refer to "Junior/Senior Projects" on next page).

Students must agree to complete the shadowing experience between the hours of 9 a.m. and 4 p.m. Students who are participating in longer formal school career programs (up to 10 days) must be available every business day on a full-time basis for the duration of their project. Students are required to adhere to all NASA safety, security, and program guidelines.

Prior to departure from NASA, all students **must** complete several Shadowing evaluations. Completion of the evaluations is a project requirement as feedback is vital to the success of our programs.

## Junior/Senior Projects

Long-term projects are limited to up to 10 days (2 weeks) and are dependent upon the mentors' availability. All long-term project applicants will be accepted under the following conditions:

1. There is an employee in the mentor pool interested in mentoring a long-term project student in your area of interest or you already have identified a NASA employee on your application who will serve as your mentor.
2. Student agrees to provide project forms and coordinate project with mentor prior to arrival. Not providing papers in a timely manner could jeopardize a scheduled junior/senior project experience as mentors need time to prepare for students and respond to school guidelines.
3. Student must indicate on the application if they would be interested in a 1-week shadowing experience if GRC is unable to support their entire long-term project request.
4. Travel and lodging expenses are at the student/family's expense. Lodging information can be provided upon request.

## Application

Students must complete and return the attached application and forms of the entire application packet. Applications can be obtained at the following Web site: [www.nasa.gov/centers/glenn/education/ShadowingProgram\\_GRC.html](http://www.nasa.gov/centers/glenn/education/ShadowingProgram_GRC.html). Applications must be postmarked or date-stamped by our office no later than the deadline dates. Incomplete applications will not be processed. Placements **cannot** be made without the signature of a parent or guardian (if applicable) and recommending science, technology, or mathematics teacher. Return all forms to

**NASA Glenn Research Center  
Educational Programs Office  
Attn: Shadowing Project, Mail Stop 7-4  
21000 Brookpark Road  
Cleveland, OH 44135-3191**

## Selection Process

Student requests will be accepted on a first-come, first-served basis. Application packet must be complete for consideration.

Shadowing placements are dependent upon the availability of appropriate GRC mentors and facilities. The Educational Programs Office cannot guarantee a shadowing experience and will not sign any forms that state a shadowing experience is guaranteed. Each session has limited placement.

## Notification

Students will be contacted to confirm their availability. **An official notification (i.e., selectee, nonselectee, or ineligible) will be sent to the student, parent/guardian, and guidance counselor e-mail account noted on the student's application** by the appropriate notification date noted below. If a student/parent/guardian has not included an e-mail address on their application, then official notification will be mailed to the student's home address.

**Students should notify the NASA Glenn Educational Programs Office (EPO) by phone, 216-433-6656 or via e-mail, [intern@grc.nasa.gov](mailto:intern@grc.nasa.gov), if their e-mail, phone (home/cell), or home address changes.** Students should also call or e-mail when inquiring about the status of their application or to obtain additional information.

## Schedule

<u>Session</u>	<u>Application Deadline</u>	<u>Selection Notification Date</u>
<b>I</b> December 6, 2011	November 10, 2011	November 22, 2011
<b>II</b> February 29, 2012	January 27, 2012	February 15, 2012
<b>III</b> March 27, 2012	January 27, 2012	March 9, 2012
<b>IV</b> April 25, 2012	January 27, 2012	April 6, 2012

# 2011 – 2012 Shadowing Project Student Application Form

## Educational Programs Office

Please type or print in black ink only.

Full legal name \_\_\_\_\_ Date of birth \_\_\_\_\_  
Last name, suffix (e.g., Jr.) First name Middle name mm dd year (e.g., 11/14/1992)

Place of birth \_\_\_\_\_ Gender: ☐ Male ☐ Female  
City, State, Country

U.S. Citizen ☐ Yes ☐ No

Note: If U.S. citizen and born outside the United States or Puerto Rico, you **must** provide the information requested below. If selected you **must** provide documentation prior to start date for acceptance to be finalized.

Naturalization no. \_\_\_\_\_ Date issued \_\_\_\_\_ Date expired \_\_\_\_\_  
Passport no. \_\_\_\_\_ Date issued \_\_\_\_\_ Date expired \_\_\_\_\_

### You Must Provide Both Addresses:

Permanent (home) address \_\_\_\_\_ School name \_\_\_\_\_  
City State Please provide your 9-digit ZIP Code If homeschooled, write "homeschooled"  
see <http://zip4.usps.com/zip4/welcome.jsp>

School address \_\_\_\_\_

Telephone no. ( ) \_\_\_\_\_  
City State ZIP Code

Cell no. ( ) \_\_\_\_\_ School telephone no. ( ) \_\_\_\_\_

Permanent student e-mail address \_\_\_\_\_

Permanent parent/guardian e-mail address \_\_\_\_\_

Permanent guidance counselor e-mail address \_\_\_\_\_

Cumulative GPA = \_\_\_\_\_ (on a 4.0 scale)

Academic level as of Fall 2012:

☐ HS Sophomore ☐ HS Junior  
☐ HS Senior ☐ College Freshman

Have you previously applied for or participated in a NASA program? ☐ Yes ☐ No

Check any of the following NASA programs you have previously applied for (A) or participated in (P) and indicate the year:

(A)	(P)		Year	(A)	(P)		Year
<input type="checkbox"/>	<input type="checkbox"/>	FIRST					
<input type="checkbox"/>	<input type="checkbox"/>	GRC Exploring Program		<input type="checkbox"/>	<input type="checkbox"/>	INSPIRE	
<input type="checkbox"/>	<input type="checkbox"/>	GRC LERCIP High School		<input type="checkbox"/>	<input type="checkbox"/>	NES (NASA Explorers School) School Name _____	
<input type="checkbox"/>	<input type="checkbox"/>	GRC N.A.S.A. Project		<input type="checkbox"/>	<input type="checkbox"/>	SEMAA Site Name _____	
<input type="checkbox"/>	<input type="checkbox"/>	GRC Shadowing Project			<input type="checkbox"/>	Other _____	

### Office use only

Date received \_\_\_\_\_ Date processed \_\_\_\_\_ Initials \_\_\_\_\_

Duration of shadowing experience you are requesting:

☐ 1 day (9 a.m. to 4 p.m.) ☐ Long term (i.e., Junior/Senior projects)

☐ Check here if willing to accept 1 week if unable to accommodate 2 weeks

1 day—Check the session you wish to shadow at NASA GRC:

☐ Session I (December 6, 2011) ☐ Session II (February 29, 2012) ☐ Session III (March 27, 2012) ☐ Session IV (April 25, 2012)

**Long-Term Junior/Senior Project Students**—Indicate preferred month(s) below and any specified dates for project.

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Please note, accommodations are dependent upon mentor's availability.

Do you know someone at NASA GRC who would be willing to be your mentor?

☐ Yes ☐ No \_\_\_\_\_ ( ) \_\_\_\_\_  
Name of employee Employee phone number

If yes, has this employee **verbally committed** to mentoring you on the dates specified on this application?

☐ Yes ☐ No Comments \_\_\_\_\_

Name and signature of recommending science, technology, or mathematics teacher:

\_\_\_\_\_  
Print name

\_\_\_\_\_  
Signature

Position \_\_\_\_\_

School telephone ( ) \_\_\_\_\_ ext. \_\_\_\_\_

Alternate telephone ( ) \_\_\_\_\_

E-mail address \_\_\_\_\_

*Please note that additional comments or letters of recommendation are not needed.*

Are you interested in:

- ☐ Infusing NASA education content into the current curriculum
- ☐ Developing Project-Based learning units
- ☐ Attending a free Professional Development Workshop at NASA GRC and tour its facilities next summer (dependent upon teacher interest)
- ☐ Using NASA Explorer schools to extend the current classroom and after school curriculum

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### How did you learn about the program?

- ☐ Faculty member or school official
- ☐ Group visit to GRC
- ☐ Inquiry to NASA about summer opportunities
- ☐ NASA Web site
- ☐ GRC Educational Programs staff
- ☐ GRC Educational Programs Web site
- ☐ Other (please specify) \_\_\_\_\_

Do you have a relative who works for

☐ NASA or ☐ NASA contractor

\_\_\_\_\_  
Name/Relationship

\_\_\_\_\_  
Company name/Area/Organization

## 2011 – 2012 High School Shadowing Project

### Student Certification

I certify, by my signature below, that I am a citizen of the United States of America and that all information contained in this application is accurate and correct. I further understand and agree that any misrepresentation or inaccurate information reported on my application will be cause for disqualification for consideration and from participation in the Shadowing Project and other NASA programs.

If selected to participate, I understand I must participate for the entire time allocated and failure to do so or abide by the program safety and security policies and procedures.

Print your full name below and sign and date for acceptance—the signature of a parent or guardian is only required if student is under 18 years of age.

Student

Parent/Guardian

\_\_\_\_\_  
*Print name*

\_\_\_\_\_  
*Print name*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Telephone number where you can be reached during the day*

**Please complete the following to assist with placement section, please ensure you have the following items as in LERCIP High School:**

The following are the areas that mentors are available for shadowing experiences.

Please mark with an "X" the area in which you would like to shadow. Please only mark one box.

Note: There are no shadowing opportunities in medicine or veterinary medicine.

- |  |  |
|--|--|
| <input type="checkbox"/> Aero/Astro Engineering (Eng.) | <input type="checkbox"/> Environmental Engineering/Science     |
| <input type="checkbox"/> Accounting                    | <input type="checkbox"/> Biological Science                    |
| <input type="checkbox"/> Life Science                  | <input type="checkbox"/> Business Administration               |
| <input type="checkbox"/> Biomedical Science            | <input type="checkbox"/> Materials Engineering/Science         |
| <input type="checkbox"/> Education                     | <input type="checkbox"/> Ceramics                              |
| <input type="checkbox"/> Mathematics                   | <input type="checkbox"/> Graphic Design/Technical Illustration |
| <input type="checkbox"/> Chemical Engineering          | <input type="checkbox"/> Mechanical Engineering                |
| <input type="checkbox"/> Chemistry                     | <input type="checkbox"/> Physics                               |
| <input type="checkbox"/> Personnel                     | <input type="checkbox"/> Computer Engineering/Science          |
| <input type="checkbox"/> Physical Science              | <input type="checkbox"/> Public Relations                      |
| <input type="checkbox"/> Electrical Engineering        | <input type="checkbox"/> Polymers                              |
| <input type="checkbox"/> Video/Animation               | <input type="checkbox"/> Electronic Engineering                |
| <input type="checkbox"/> Structural Engineering        | <input type="checkbox"/> Systems Engineering                   |



## Student Narrative

Write a brief narrative elaborating on some of your goals for the next 2 years. List any classes you have taken, or are currently taking, that are conclusive to your shadowing experience (i.e., math, science, computer, business, etc.). Also, state the benefits you expect to gain from your experience.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.





## 2011 – 2012 High School Shadowing Project

### Release Form

*(Completion of form is required for processing of application.)*

**For appearance in photographs or other image-based media or production by or for NASA**

John H. Glenn Research Center at Lewis Field  
National Aeronautics and Space Administration  
21000 Brookpark Road  
Cleveland, OH 44135-3191

Glenn Educational Programs Office Workshop/Activity/Event.  
2011-2012 Shadowing Project

To the United States Government, NASA, the Glenn Research Center, its contractors, partners, or those acting with its authority and permission and employees of the United States Government, NASA, the Glenn Research Center, its contractors, partners, or those acting with its authority and permission I hereby

- a. grant the unrestricted right and permission to copyright and use, re-use, publish, and re-publish photographic or digital images of me or in which I may be included intact or in part, composite or distorted in character or form, without restriction as to changes or transformations in conjunction with my own or a fictitious name, or reproduction hereof in color or otherwise, made through any and all media now or hereafter known for illustration, art, promotion, advertising, trade, or any other purpose whatsoever.
- b. permit the use of any printed material in connection herewith.
- c. release, discharge, and agree to save harmless from any liability by virtue of any blurring, distortion, alteration, optical illusion, or use in composite form whether intentional or otherwise, that may occur or be produced in the taking of said picture or in any subsequent processing thereof, as well as any publication thereof, including without limitations any claims for libel or invasion of privacy.
- d. ☐ affirm that I am over the age of 18 and have the right to contract in my own name. I have read the above authorization, release, and agreement, prior to its execution; I fully understand the contents thereof. This agreement shall be binding upon me and my heirs, legal representatives, and assigns.

**Additional information is required—see bottom three lines.**

or

- e. ☐ affirm that I am the parent or legal guardian for

Name of the minor subject(s) depicted in the photographs or digital images

and have the right to contract for him/her. I have read the above authorization, release, and agreement, prior to its execution; I fully understand the contents thereof. This agreement shall be binding upon me and my heirs, legal representatives, and assigns and those of the subject(s) listed above. **Parental/guardian information is required below.**

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
ZIP Code

\_\_\_\_\_  
Date

(       ) \_\_\_\_\_  
Phone



## Emergency Medical Authorization

(Completion of form is required for processing of application.)

### NASA Glenn Research Center

FULL LEGAL NAME OF STUDENT (Last, suffix (e.g., Jr.), first, middle initial)		IS STUDENT UNDER 18? <input type="checkbox"/> YES <input type="checkbox"/> NO	DATE OF BIRTH
ADDRESS			HOME TELEPHONE NUMBER
EMERGENCY CONTACT (Please include name and relationship and home, work, and cell phone numbers.)			
ALTERNATE EMERGENCY CONTACT (Please include name and relationship and home, work, and cell phone numbers.)			
Facts concerning the student's medical history to which the medical practitioner should be alerted. Submission of this information is <b>VOLUNTARY</b> and will remain <b>strictly</b> confidential; however, it would be helpful in time of an emergency medical situation.			
ALLERGIES			
CURRENT MEDICATIONS			
RESTRICTIONS TO ANY ACTIVITIES?			
PAST MEDICAL/SURGICAL HISTORY			
LAST TETANUS/DIPHTHERIA IMMUNIZATION			
MEDICAL INSURANCE INFORMATION OR SUBMIT COPY OF CARD  INSURANCE COMPANY NAME: GROUP NUMBER: ID NUMBER: POLICYHOLDER NAME:			
<p><i>In the event that reasonable attempts to contact one of the parents of, or the legal guardian of, the above minor are not successful, I hereby give my consent to the administration of medical treatment deemed necessary by the Medical Services Office at the NASA Glenn Research Center. In the event that more extensive medical care is necessary than that given by the Glenn Medical Services Office, I authorize the transfer of the minor to a local hospital by ambulance.</i></p> <p>_____</p>			
SIGNATURE OF PARENT/GUARDIAN			DATE

NASA C-10039 (SEP 11)



## Student Information

Name (print): \_\_\_\_\_

### Program you are applying for: 2011 – 2012 Shadowing Project

In order to determine the degree to which members of each ethnic and racial group are reached by this announcement, NASA requests that the student check the appropriate block(s) below. Submission of this information is **VOLUNTARY**.

The information solicited on this form will not be available to those responsible for reviewing applications, but will be used by NASA primarily to determine the extent to which various populations are represented in the applicant pool. This information will remain strictly confidential.

Please complete and return with application materials.

#### What is your ethnicity? (check one)

- ☐ Do not wish to provide
- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino

#### What is your race? (check one or more)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African-American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White
- ☐ Some other race
- ☐ Do not wish to provide

#### Individual with a disability (check one or more)

- ☐ Hearing impairment
- ☐ Visual impairment
- ☐ Mobility/orthopedic impairment
- ☐ Other \_\_\_\_\_
- ☐ None
- ☐ Do not wish to provide

Please list any special accommodations required:

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